

## CLAIMS:

1. A cathodoluminescent gas discharge display comprising a defined, gas-filled space (3), an anode (4) and a cathode (5) adapted to receive an electrical voltage, and a luminescent screen comprising a luminescent substance (6), wherein, when an electrical voltage is applied across the anode (4) and the cathode (5), a plasma comprising ions and electrons is generated by a gas discharge in the gas-filled space (3), said plasma ions impact on the cathode (5), and secondary electrons are created by said impact, characterized in that the anode (4) is provided in a rear section of the display, the cathode (5) and the luminescent screen (6) are provided in a front section of the display, and said secondary electrons are used to excite the luminescent substance (6).

2. A cathodoluminescent gas discharge display as claimed in claim 1, wherein the secondary electrons are accelerated from the cathode (5) to the screen (6) by an applied acceleration voltage.

3. A cathodoluminescent gas discharge display as claimed in claim 2, wherein the acceleration voltage is at least 1 kV.

4. A cathodoluminescent gas discharge display as claimed in any one of claims 1 to 3, wherein the screen comprising a luminescent substance (6) is a phosphor screen.

5. A cathodoluminescent gas discharge display as claimed in any one of claims 1 to 4, wherein the cathode (5) is made of or coated with a high secondary electron emitting material.

6. A cathodoluminescent gas discharge display as claimed in any one of claims 1 to 5, wherein the cathode (5) thickness is within the range of from 100 nm to 100  $\mu$ m.

7. A cathodoluminescent gas discharge display as claimed in any one of claims 1 to 6, wherein the cathode (5) is cone-shaped.